Model Clearinghouse Information Storage and Retrieval System

Record Information Report

Record Number: 99-IX -02   Fiscal Year: 1999   Region: 09   Last Update:
Name: Yarnell Mine-June 99   06/18/99

State(s):   ARIZONA
Pollutant(s):   PM-10
Regulation(s):   EIS
Source(s):   Mine
Model(s):   ISC3
Subject(s):   Interpretation of Modeling Guidance
                 Open Dust Fugitives
                 Performance Evaluations
Urban/Rural: Rural Only
Oral/Written: Oral
Terrain: Low Terrain (below stack height)
Guideline: Guideline
Database: Off-site
Involvement: Review and Comment
Record Comments:
                 RECORD OF COMMUNICATION
___TELEPHONE CALL   ___MEETING   __x_CONFERENCE CALL   ___OTHER
INFORMATION COPIES TO: Joe Scott Warren Dan
TO: D. Wilson, J. Touma
FROM: Scott Bohning--Region IX
DATE: 6/17/99
TIME: 10 am
SUBJ: Yarnell
SUMMARY OF COMMUNICATION:
An EIS is being written for the proposed source, a gold mine. Region IX is party to
the EIS. The source is minor but there are ISC3/AP42 modeled violations of the
PM10 increment involved.
Issue 1. The source has pointed out that ISC3 with AP 42 emission factors has
beenshown to overpredict PM10 levels in EPA's study of Western surface coal mines in
WY pursuant to CAA Section 234. They claim that the modeling for the gold mine is
thus flawed and should not be relied upon and that the permit can be issued.
C/H Comments: While there were overpredictions of PM10 in the Western surface
coalmine study, that mining situation was unique and it is not clear that the
results can be extrapolated to other sources, including Yarnell. Furthermore, if there
is a requirement to make a concentration estimate for Yarnell, ISC3 with AP42 factors

is the best tool we have and that is what we recommend. The source is free to do site specific studies in an effort to obtain better emission factors or improve the ISC3 model.

Pursuant to this position, the C/H recommends that the language in Region IX 6/9/99 issue paper be changed as follows:

Please modify the 2nd sentence in option 1 to the following:

1. "There is a tendency for the ISC model, coupled with AP-42 emissions factors, to over predict air concentrations from surface coal mines for particulate matter less than 10 micrometers. The same over prediction does not appear for total suspended particulate matter (TSP). The causes of the over prediction for this particular class of sources are as yet undetermined. This model, however, has been evaluated for other sources and has been found accurate within accepted norm"

2. Please delete "..and by the addition of the pit retention algorithm to the ISCST3 model." This option was included in the evaluation.

Issue 2: Since the source is minor, can EPA ignore the predicted violation and support the EIS and allow issuance of the permit.

C/H Comment: Discussion only, no recommendation. Region IX points out that to do so is problematic because it sets a precedent whereby EPA is party to a predicted violation. On the other hand it could be interpreted as precedent setting to deny a minor source a permit because of an increment violation. However, Region IX does not think the precedent would transfer to the States NSR program, as they have feared. The State has said that they will do a S107 redesignation to make the problem go away. However EPA has no authority to require the State to do so. Region IX has talked to Region VIII and that Region has required minor sources to correct increment violations as part of EIS's. The OAQPS NSR group has concern about the precedent and would rather that something be worked out on the redesignation.

FOLLOW UP ANTICIPATED: Region IX will talk further with the OAQPS NSR people to try to work something out from a procedural standpoint.

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